



Howard County's Land Use Projection System



**BALTIMORE METROPOLITAN COUNCIL
COOPERATIVE FORECASTING GROUP**

AUGUST 26, 2020





Howard County Land Use GIS

- Have been using for many years for purposes of development monitoring (APFO)
- We recently overhauled & modernized
- Real time tracking – updated weekly
- Detailed at the parcel and lot level



Howard County Land Use GIS

- Used for land use reporting and projections – schools, water/sewer, parks, solid waste, police, fire, transportation purposes, and others.
- Projections updated at the end of each calendar year using Sept. 30 as cutoff (school year official enrollments)



Land Use Codes

Undeveloped Land

- 1-0 Undeveloped Residential
- 2-0 Undeveloped Commercial
- 3-0 Undeveloped Industrial
- 4-0 Undeveloped Institutional/Government

1- Residential

- 1-1 Low-Density Residential
 - Single-Family Detached homes and duplexes
- 1-2 Medium-Density Residential
 - Single-Family Attached and mobile homes
- 1-3 High-Density Residential
 - Apartments
- 1-4 Age-Restricted Residential



Land Use Codes

2- Commercial

2-1 Retail

2-2 Office

2-3 Service

2-4 Hotel

2-5 Mixed Commercial

3- Industrial

3-1 Light Industrial

3-2 Heavy Industrial

3-3 Warehouse



Land Use Codes

- 4- Government and Institutional
 - 4-1 Public Schools
 - 4-2 Private School & Daycare
 - 4-3 College, Professional, or Vocational School
 - 4-4 Religious
 - 4-5 Religious with School
 - 4-6 Cemetery
 - 4-7 Local Government
 - 4-8 State Government
 - 4-9 Federal Government
 - 4-10 Community/Recreational
 - 4-11 Hospital and Medical
 - 4-12 Nursing Homes (inc. Group Homes)



Land Use Codes

5- ROW and Utilities

5-1 Roadway ROW & Parking

5-2 Railway

5-3 Airfield

5-4 Communications

5-5 Utility Lines and Stations

6- Parks and Open Space

6-1 State Park

6-2 County Park and Open Space

6-3 WSSC Open Space

6-4 Columbia Open Space



Land Use Codes

7- Mixed-Use

7-1 Residential/Commercial

Ex. Apartments above ground-level retail

7-2 Commercial/Industrial

Ex. Industrial parks with mixed service, office, and light industrial suites sharing a single parcel

7-3 Institutional/Commercial

Ex. Mixed office use types, with government and private office suites on a single parcel

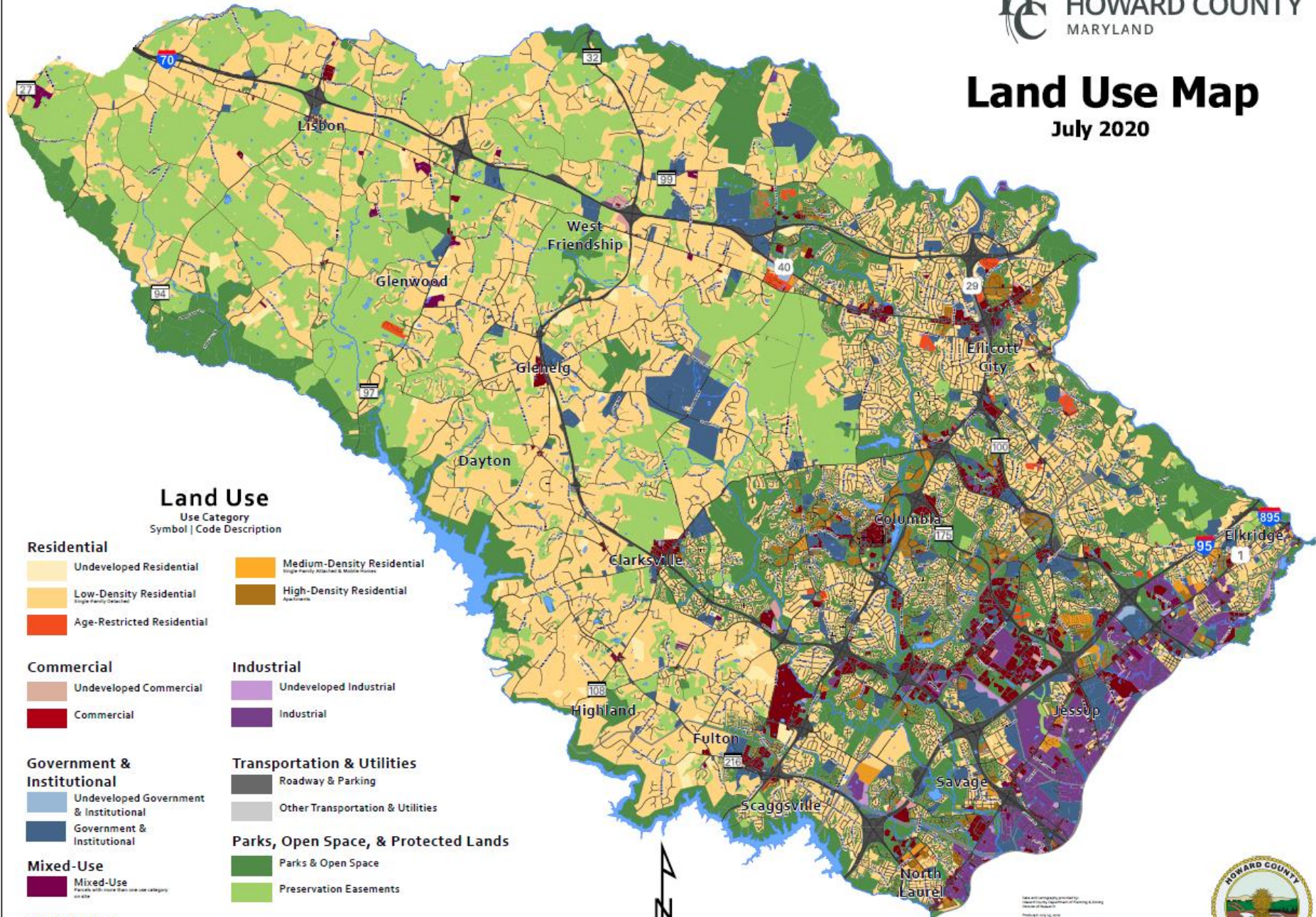
7-4 Institutional/Residential

Ex. The New Cultural Center planned for Downtown Columbia; apartments above theatre, gallery, and community space

99 Fragments, Unknown, Etc.

Land Use Map

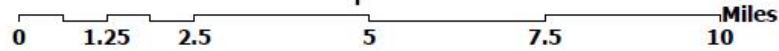
July 2020



Land Use

Use Category
Symbol | Code Description

- | | |
|---|--|
| Residential | |
| Undeveloped Residential | Medium-Density Residential
<small>Single Family Attached & Mobile Homes</small> |
| Low-Density Residential
<small>Single Family Detached</small> | High-Density Residential
<small>Apartments</small> |
| Age-Restricted Residential | |
| Commercial | |
| Undeveloped Commercial | Undeveloped Industrial |
| Commercial | Industrial |
| Government & Institutional | |
| Undeveloped Government & Institutional | Roadway & Parking |
| Government & Institutional | Other Transportation & Utilities |
| Mixed-Use | |
| Mixed-Use
<small>Parcels with more than one use category or code</small> | |
| Waterbodies | |
| Streams, Lakes, Ponds, & Reservoirs | |
| Industrial | |
| Transportation & Utilities | |
| Parks, Open Space, & Protected Lands | |
| Parks & Open Space | Preservation Easements |



Data and cartography provided by Howard County Department of Planning & Zoning, Office of Research.
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Land Use Projections System

Residential Stages for Projections

- Existing unit – current year
- Building permit issued – 1st projection year
- Recorded lot – 1st and 2nd projection years
- In process plan – 1st through 4th projection years, depending on plan stage & can be phased plan
- Undeveloped land – 5th projection year and later

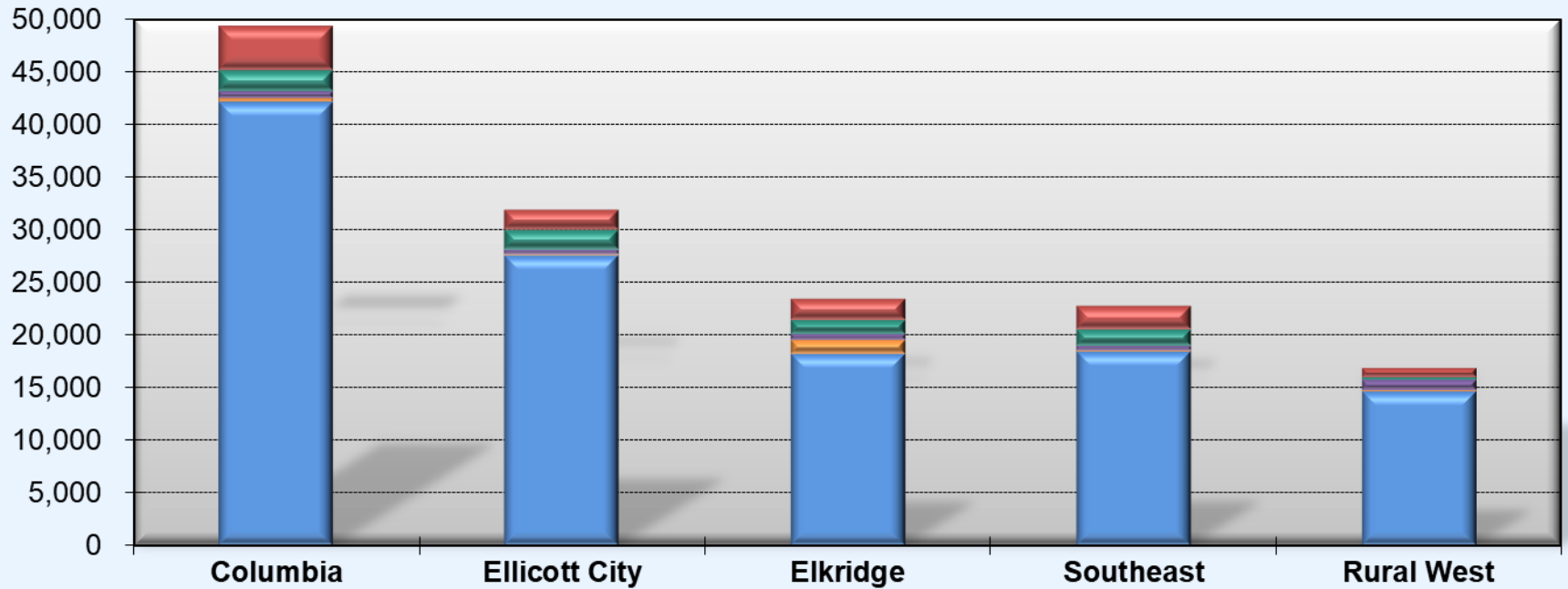


Residential Unit Distribution by Stage and Type
Existing Units as of Sept. 30,2019 & In-Process Units November 2019

		SFD	SFA	APT	MH	SR-SFD	SR-SFA	SR-APT	Total	
Columbia	Existing	16,126	10,855	14,155	0	22	444	461	42,063	
	Permit	16	0	382	0	0	0	0	398	
	Unbuilt	135	1	436	0	0	0	90	662	
	In-Process	136	114	1,722	0	0	24	0	1,996	
	Undeveloped	262	125	3,778	0	0	37	18	4,220	
	Total	16,675	11,095	20,473	0	22	505	569	49,339	
Ellicott City	Existing	15,415	3,716	5,378	0	318	875	1,805	27,507	
	Permit	61	31	0	0	1	4	16	113	
	Unbuilt	315	95	4	0	0	0	107	521	
	In-Process	351	653	799	0	0	0	0	1,803	
	Undeveloped	900	58	326	0	0	144	464	1,892	
	Total	17,042	4,553	6,507	0	319	1,023	2,392	31,836	
Elkridge	Existing	7,485	5,158	4,189	859	18	87	408	18,204	
	Permit	55	128	1,102	1	0	0	0	1,286	
	Unbuilt	285	161	137	0	0	0	0	583	
	In-Process	95	380	876	0	0	0	0	1,351	
	Undeveloped	734	340	823	0	0	30	69	1,996	
	Total	8,654	6,167	7,127	860	18	117	477	23,420	
Southeast	Existing	8,046	5,994	3,541	427	32	132	300	18,472	
	Permit	59	6	0	0	0	1	0	66	
	Unbuilt	349	47	0	0	0	0	0	396	
	In-Process	293	486	820	0	0	0	0	1,599	
	Undeveloped	1,033	655	521	0	0	0	0	2,209	
	Total	9,780	7,188	4,882	427	32	133	300	22,742	
Rural West	Existing	14,513	0	6	2	25	68	0	14,614	
	Permit	97	0	0	0	0	0	0	97	
	Unbuilt	1,071	0	0	0	0	0	0	1,071	
	In-Process	168	0	0	0	0	0	0	168	
	Undeveloped	896	0	0	0	0	0	0	896	
	Total	16,745	0	6	2	25	68	0	16,846	
Coutywide	Existing	61,585	25,723	27,269	1,288	415	1,606	2,974	120,860	83.8%
	Permit	288	165	1,484	1	1	5	16	1,960	1.4%
	Unbuilt	2,155	304	577	0	0	0	197	3,233	2.2%
	In-Process	1,043	1,633	4,217	0	0	24	0	6,917	4.8%
	Undeveloped	3,825	1,178	5,448	0	0	211	551	11,213	7.8%
	Total	68,896	29,003	38,995	1,289	416	1,846	3,738	144,183	100.0%



Residential Units by Development Stage in Howard County September 30, 2019

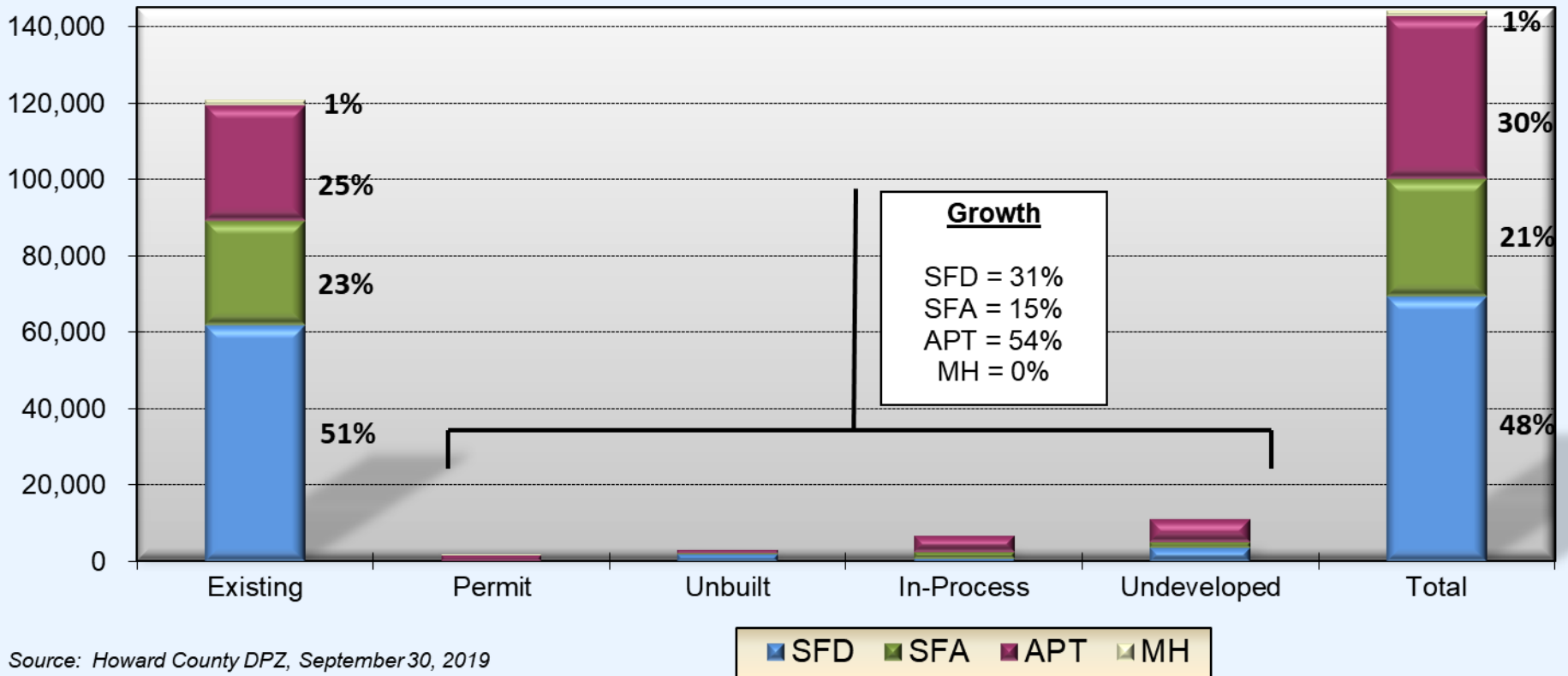


Source: Howard County DPZ, September 30, 2019





Residential Units by Development Stage in Howard County September 30, 2019



Source: Howard County DPZ, September 30, 2019



Land Use Projections System

Non-Residential Stages for Projections

- Existing – current year
- Signed SDP – 1st projection year
- In process plan – 2nd through 4th projection years, depending on plan stage & can be phased plan
- Undeveloped land – 5th projection year and later

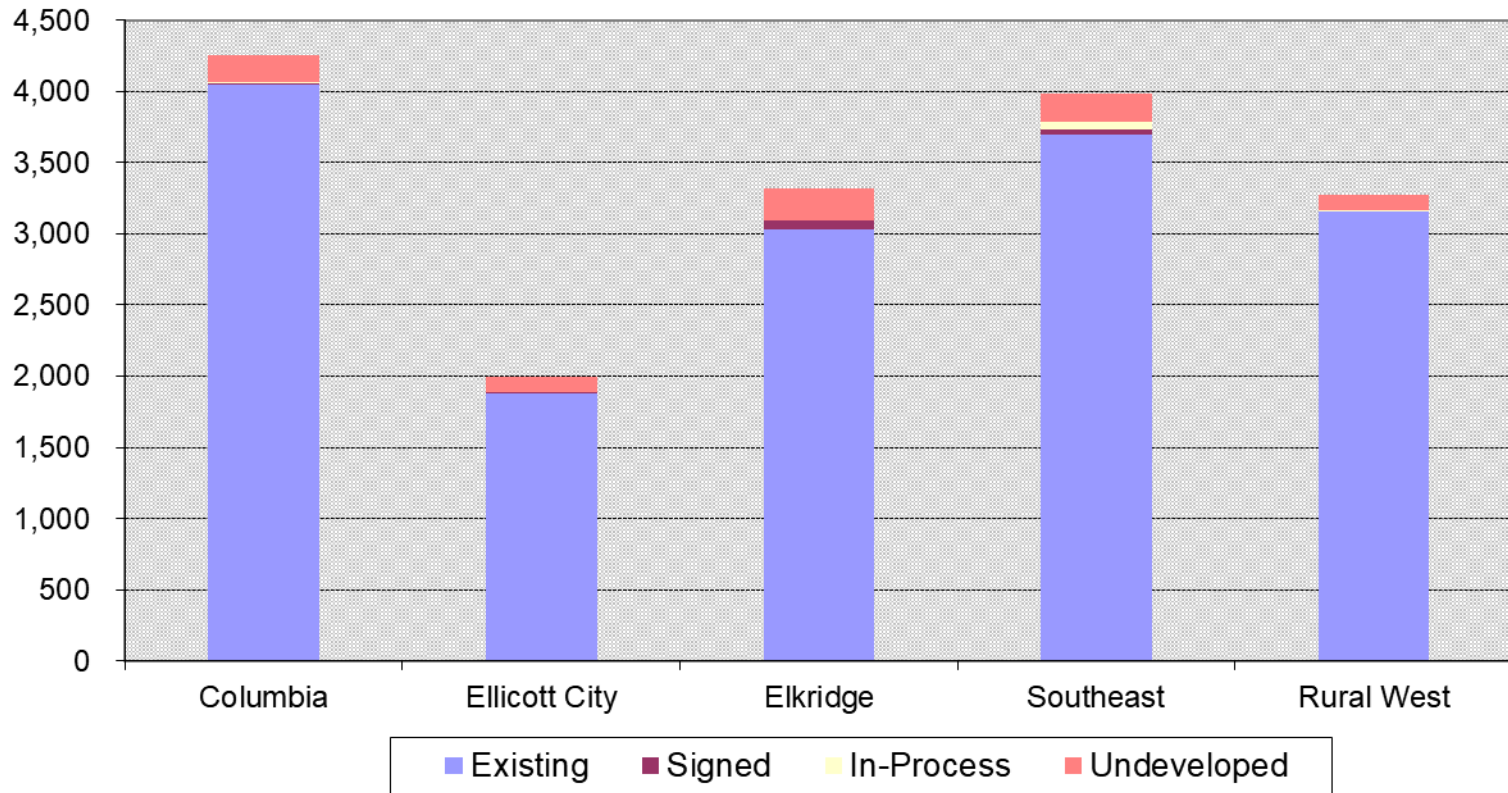
Commercial, Industrial, Govt. and Institutional Acreage Distribution by Stage and Type - September 30, 2019



		Comm	Indust	Gov & Inst.	Total	Percent
Columbia	Existing	2,157	360	1,531	4,048	95.1%
	Signed	2	8	0	10	0.2%
	In-Process	2	3	0	5	0.1%
	Undeveloped	129	65	0	194	4.6%
	Total	2,290	436	1,531	4,257	100.0%
Ellicott City	Existing	615	42	1,221	1,878	94.0%
	Signed	9	0	0	9	0.5%
	In-Process	0	0	0	0	0.0%
	Undeveloped	57	0	53	110	5.5%
	Total	681	42	1,274	1,997	100.0%
Elkridge	Existing	677	1,140	1,212	3,029	91.3%
	Signed	22	3	39	64	1.9%
	In-Process	4	0	0	4	0.1%
	Undeveloped	33	188	0	221	6.7%
	Total	736	1,331	1,251	3,318	100.0%
Southeast	Existing	1,124	1,681	894	3,699	92.8%
	Signed	22	11	0	33	0.8%
	In-Process	45	5	0	50	1.3%
	Undeveloped	78	126	0	204	5.1%
	Total	1,269	1,823	894	3,986	100.0%
Rural West	Existing	400	19	2,740	3,159	96.6%
	Signed	0	0	0	0	0.0%
	In-Process	6	0	0	6	0.2%
	Undeveloped	105	0	0	105	3.2%
	Total	511	19	2,740	3,270	100.0%
Coutywide	Existing	4,973	3,242	7,598	15,813	94.0%
	Signed	55	22	39	116	0.7%
	In-Process	57	8	0	65	0.4%
	Undeveloped	402	379	53	834	5.0%
	Total	5,487	3,651	7,690	16,828	100.0%



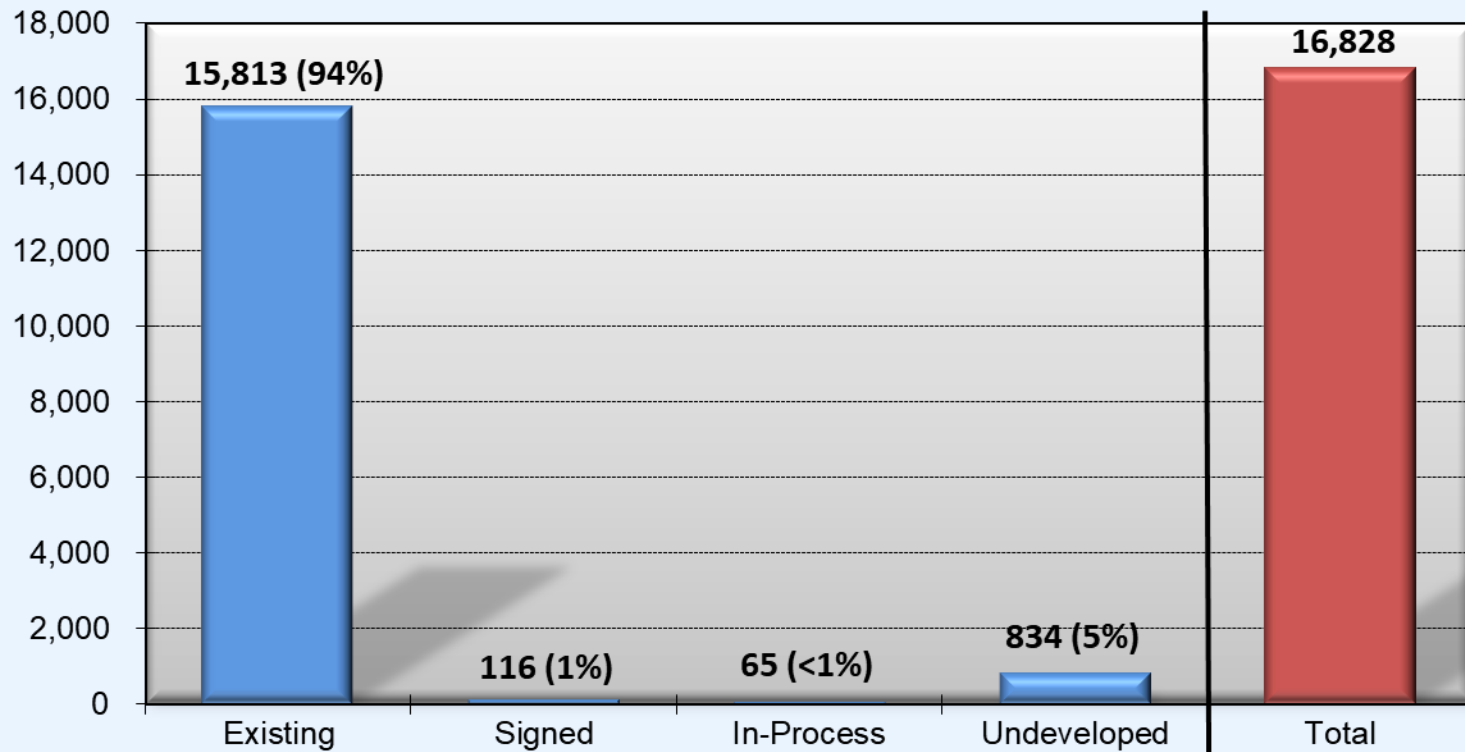
Commercial & Industrial Acres by Development Stage in Howard County - September 30, 2019



Source: Howard County DPZ, September 30, 2019



Commercial, Industrial, Gov. & Inst. Acres by Development Stage in Howard County - September 30, 2019



Source: Howard County DPZ, September 30, 2019



Next Steps

- Use CommunityViz for updated capacity analysis including resubdivision potential on existing unit lots/parcels.
- Develop CommunityViz projection model:
 1. for purposes of HoCo By Design scenarios.
 2. for 2020 base year projections for school system (and other agencies).
- For 2020 base year projections, will need to be “status quo” projections based on current zoning and capacity given HoCo By Design will not be adopted (although OK to use updated capacity).
- Projection system should include the ability for manual changes given project-specific knowledge, etc.
- Projection system should include outputs specific for school system model inputs and other DPZ reporting requirements.
- 2020 projections (using Sept 30, 2020 as the snapshot time) provided to schools in December.



Next Steps

- Non-residential projections (land use and jobs) was last done in 2017 based on 2015 jobs base (there's always a lag in getting jobs data).
- Will need to update non-res projections also for HoCo By Design this fall for scenarios.
- Updated non-residential projections also required using 2020 as the base year for Baltimore Metropolitan Council cooperative forecasting effort – due at the end of 2021.
- We receive detailed job data by location from MD DLLR through BMC after signing non-disclosure agreement. 2020 jobs data is to be forthcoming.